1

SEQUENCE LISTING

(1)   GENERAL INFORMATION:

    (i) APPLICANT:

         (A) NAME: RHONE-POULENC AGROCHIMIE

         (B) STREET: 14-20 Rue Pierre BAIZET

         (C) TOWN: LYONS

         (E) COUNTRY: France

         (F) POST CODE: 69009

    (ii) TITLE OF THE INVENTION: Gene coding for

         androctonine, vector containing it and

         disease-resistant transformed plants obtained

    (iii) NUMBER OF SEQUENCES: 11

    (vi) COMPUTER-READABLE FORM:

         (A) MEDIUM TYPE: Floppy disk

         (B) COMPUTER: IBM PC compatible

         (C) OPERATING SYSTEM: PC-DOS/MS-DOS

         (D) SOFTWARE: PatentIn Release #1.0,

         Version #1.30 (EPO)

(2)   INFORMATION FOR SEQ ID NO: 1:

    (i) SEQUENCE CHARACTERISTICS:

         (A) LENGTH: 110 base pairs

         (B) TYPE: nucleotide

2

        (C) STRANDEDNESS: double

        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA

5

    (ix) FEATURE:

        (A) NAME/KEY: CDS

        (B) LOCATION: 1..75

10   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:


```
AGG TCC GTG TGC AGG CAG ATC AAG ATC TGC AGG AGG AGG GGT GGT TGC   48
Arg Ser Val Cys Arg Gln Ile Lys Ile Cys Arg Arg Arg Gly Gly Cys
 1               5                   10                  15
```

15
```
TAC TAC AAG TGC ACT AAC AGG CCA TAC TGAGCTCGGC GAGGCGAACG         95
Tyr Tyr Lys Cys Thr Asn Arg Pro Tyr
                20                  25
```

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TGTCGACGGA TCCGG                                                 110
```


20 (2) INFORMATION FOR SEQ ID NO: 2:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 106 base pairs

        (B) TYPE: nucleotide

25   (C) STRANDEDNESS: double

        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA

3

(ix) FEATURE:

    (A) NAME/KEY: CDS

    (B) LOCATION: 12..101

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

GCGTCGACGC C ATG GGT TTC GTG CTT TTC TCT CAG CTT CCA TCT TTC CTT 50
              Met Gly Phe Val Leu Phe Ser Gln Leu Pro Ser Phe Leu
               1   5   10

CTT GTG TCT ACT CTT CTT CTT TTC CTT GTG ATC TCT CAC TCT TGC CGT 98
Leu Val Ser Thr Leu Leu Leu Phe Leu Val Ile Ser His Ser Cys Arg
        15   20   25

                                                              106
GCC GGCGA
Ala
30

(2) INFORMATION FOR SEQ ID NO: 3:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 211 base pairs

        (B) TYPE: nucleotide

        (C) STRANDEDNESS: double

        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: DNA

4

(ix) FEATURE:

    (A) NAME/KEY: CDS

    (B) LOCATION: 12..176

5   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

GCGTCGACGC C ATG GGT TTC GTG CTT TTO TCT CAG CTT CCA TCT TTC CTT   50

         Met Gly Phe Val Leu Phe Ser Gln Leu Pro Ser Phe Leu

         1   5   10

10

CTT GTG TCT ACT CTT CTT CTT TTC CTT GTG ATC TCT CAC TCT TGC CGT   98

Leu Val Ser Thr Leu Leu Leu Phe Leu Val Ile Ser His Ser Cys Arg

      15   20   25

15 GCC AGG TCC GTG TGC AGG CAG ATC AAG ATC TGC AGG AGG AGG GGT GGT   146

Ala Arg Ser Val Cys Arg Gln Ile Lys Ile Cys Arg Arg Arg Gly Gly

     30   35   40   45

TGC TAC TAC AAG TGC ACT AAC AGG CCA TAC TGAGCTCGGC GAGGCGAACG   196

20 Cys Tyr Tyr Lys Cys Thr Asn Arg Pro Tyr

           50   55

TGTCGACGGA TCCGG   211

25 (2) INFORMATION FOR SEQ ID NO: 4:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 75 base pairs

        (B) TYPE: nucleotide

5

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

5   (A)   DESCRIPTION: /desc = "synthetic

oligonucleotide 1"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

10 GCGTCGACGC GATGGGTTTC GTGCTTTTCT CTCAGCTTCC ATCTTTCCTT CTTGTGTCTA   60

CTCTTCTTCT TTTCC   75

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

15   (A) LENGTH: 72 base pairs

(B) TYPE: nucleotide

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

20   (ii) MOLECULE TYPE: other nucleic acid

(A)   DESCRIPTION: /desc = "synthetic

oligonucleotide 2"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

25

TCGCCGGCAC GGCAAGAGTA AGAGATCACA AGGAAAAGAA GAAGAGTAGA CACAAGAAGG   60

AAAGATGGAA GC   72

6

(2) INFORMATION FOR SEQ ID NO: 6:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 44 base pairs

        (B) TYPE: nucleotide

5   (C) STRANDEDNESS: single

        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid

        (A) DESCRIPTION: /desc = "synthetic

10   oligonucleotide 3"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

AGGTCCGTGT GCAGGCAGAT CAAGATCTGC AGGAGGAGGG GTGG   44

15

(2) INFORMATION FOR SEQ ID NO: 7:

    (i) SEQUENCE CHARACTERISTICS:

        (A) LENGTH: 97 base pairs

        (B) TYPE: nucleotide

20   (C) STRANDEDNESS: single

        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid

        (A) DESCRIPTION: /desc = "synthetic

25   oligonucleotide 4"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

7

CCGGATCCGT CGACACGTTC GCCTCGCCGA GCTCAGTATG GCCTGTTAGT GCACTTGTAG   60

TAGCAACCAC CCCTCCTCCT GCAGATCTTG ATCTGCC   97

(2)   INFORMATION FOR SEQ ID NO: 8:

5   (i)   SEQUENCE CHARACTERISTICS:

                  (A) LENGTH: 85 base pairs

                  (B) TYPE: nucleotide

                  (C) STRANDEDNESS: single

                  (D) TOPOLOGY: linear

10

           (ii) MOLECULE TYPE: other nucleic acid

                  (A)   DESCRIPTION: /desc = "synthetic

                             oligonucleotide 5"

15   (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

AGGGCCCCCT AGGGTTTAAA CGGCCAGTCA GGCCGAATTC GAGCTCGGTA CCCGGGGATC   60

CTCTAGAGTC GACCTGCAGG CATGC   85

20 (2)   INFORMATION FOR SEQ ID NO: 9:

           (i)   SEQUENCE CHARACTERISTICS:

                  (A) LENGTH: 66 base pairs

                  (B) TYPE: nucleotide

                  (C) STRANDEDNESS: single

25   (D) TOPOLOGY: linear

           (ii) MOLECULE TYPE: other nucleic acid

                  (A)   DESCRIPTION: /desc - "synthetic

8

oligonucleotide 6"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

5   CCCTGAACCA GGCTCGAGGG CGCGCCCTTAA TTAAAAGCTT GCATGCCTGC AGGTCGACTC   60

TAGAGG   66

(2)   INFORMATION FOR SEQ ID NO: 10:

(i)   SEQUENCE CHARACTERISTICS:

10   (A) LENGTH: 93 base pairs

(B) TYPE: nucleotide

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

15   (ii) MOLECULE TYPE: other nucleic acid

(A)   DESCRIPTION: /desc = "synthetic

oligonucleotide 7"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

20

CCGGCCAGTC AGGCCACACT TAATTAAGTT TAAACGCGGC CCCGGCGCGC CTAGGTGTGT   60

GCTCGAGGGC CCAACCTCAG TACCTGGTTC AGG   93

(2)   INFORMATION FOR SEQ ID NO: 11:

25   (i)   SEQUENCE CHARACTERISTICS:

(A) LENGTH: 93 base pairs

(B) TYPE: nucleotide

(C) STRANDEDNESS: single

9

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: other nucleic acid

(A)   DESCRIPTION: /desc = "synthetic

oligonucleotide 8"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

CCGGCCTGAA CCAGGTACTG AGGTTGGGCC CTCGAGCACA CACCTAGGCG CGCCGGGGCC   60

GCGTTTAAAC TTAATTAAGT GTGGCCTGAC TGG   93